

INDUSTRIAL AUTOMATION PRODUCT

6ES7317-2EK13-0AB0

SIMATIC S7-300 CPU 317-2 PN/DP

central program execution with PROFINET, MPI and PROFIBUS DP communication

IDENTITY	VERIFIED VALUE
Manufacturer	Siemens
System family	SIMATIC S7-300 automation system
Part number	6ES7317-2EK13-0AB0
Country	Germany
HS code	8537101190

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2

Technical Specifications

Technical values below are limited to the named Siemens product record.

PARAMETER	VALUE
Complete model	6ES7317-2EK13-0AB0
CPU designation	CPU 317-2 PN/DP
Hardware version	01
Firmware version	V2.6
Programming package	STEP 7 V5.4 SP2
Rated supply voltage	24 V DC
Permissible supply range	20.4 to 28.8 V DC
External supply protection	2 A min.
Rated current consumption	650 mA
No-load current, typ.	100 mA
Inrush current, typ.	2.5 A
I _{2t}	1 A2s
Power loss, typ.	3.5 W
Integrated work memory	1 Mbyte

PARAMETER	VALUE
Plug-in load memory	SIMATIC Micro Memory Card
MMC capacity, max.	8 Mbyte
MMC data retention, min.	10 years
Bit-operation time, typ.	0.05 us
Word-operation time, typ.	0.2 us
Fixed-point operation time, typ.	0.2 us
Floating-point operation time, typ.	1 us
Total blocks	2048
First interface	MPI/PROFIBUS DP, 12 Mbit/s
Second interface	Ethernet PROFINET
Integrated digital inputs	0
Integrated digital outputs	0
Integrated analog inputs	0
Integrated analog outputs	0

VERIFIED PRODUCT RECORD

DATA GROUP	VERIFIED VALUE
Installed host / carrier	SIMATIC S7-300 rack
Companion hardware	SIMATIC Micro Memory Card
Field connection	PROFINET I/O devices
Primary system function	Executes S7-300 automation programs
Controlled acceptance duty	PROFINET distributed I/O control

3

System Role and Architecture

central program execution with PROFINET, MPI and PROFIBUS DP communication

FUNCTION 1

Executes S7-300 automation programs

FUNCTION 2

Exchanges cyclic PROFINET I/O data

FUNCTION 3

Coordinates MPI and PROFIBUS DP stations

FUNCTION 4

Retains program and data through the Micro Memory Card

Matched system components

- SIMATIC S7-300 rack
- SIMATIC Micro Memory Card
- PROFINET I/O devices
- MPI/PROFIBUS DP stations

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	SIMATIC S7-300 rack
Companion hardware	SIMATIC Micro Memory Card
Field connection	PROFINET I/O devices
Primary system function	Executes S7-300 automation programs
Controlled acceptance duty	PROFINET distributed I/O control

4

Applications and Engineering Context

PROFINET distributed I/O control

Executes S7-300 automation programs

Mixed PROFINET and PROFIBUS automation

Exchanges cyclic PROFINET I/O data

S7-300 multi-rack machine control

Coordinates MPI and PROFIBUS DP stations

CPU 317-2 PN/DP installed-base migration

Retains program and data through the Micro Memory Card

TECHNICAL NOTE

Supply 6ES7317-2EK13-0AB0 from the documented 24 V DC circuit and restore its STEP 7 MPI, PROFIBUS DP and PROFINET configuration. Verify link states, CPU diagnostics and controlled network communication before returning the system to service.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	6ES7317-2EK13-0AB0 / 6ES7317-2EK13-0AB0 recorded
Physical interface	SIMATIC S7-300 rack
Companion check	SIMATIC Micro Memory Card
Functional proof	Executes S7-300 automation programs
Application test	PROFINET distributed I/O control

5

Engineering Precautions

1

Confirm 6ES7317-2EK13-0AB0, hardware version and firmware before changing the controller.

2

Archive the STEP 7 project, IP configuration and station names before replacement.

3

Isolate the 24 V DC supply and place all controlled processes in a safe state.

4

Apply ESD controls and protect the backplane, MPI/DP and Ethernet connectors.

5

Preserve PROFIBUS addresses, termination and the complete PROFINET topology record.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
6AV6545-0DB10-0AX0	SIMATIC operator panel	View 6AV6545-0DB10-0AX0 page
6ES7422-1BL00-0AA0	SIMATIC digital output	View 6ES7422-1BL00-0AA0 page
6ES7421-1BL01-0AA0	SIMATIC digital input	View 6ES7421-1BL01-0AA0 page
6ES7151-1AA06-0AB0	SIMATIC ET 200S interface	View 6ES7151-1AA06-0AB0 page
6SL3350-6TK00-0BA0	SINAMICS component	View 6SL3350-6TK00-0BA0 page
6SL3351-1AE37-5BA1	SINAMICS power component	View 6SL3351-1AE37-5BA1 page
6SL3352-1AE37-5BA1	SINAMICS power component	View 6SL3352-1AE37-5BA1 page
6SE7090-0XX84-3DB1	SIMOVERT board	View 6SE7090-0XX84-3DB1 page

MANUFACTURER SOURCE RECORD

Siemens CPU 31xC and CPU 31x Technical Specifications

A5E00105475-12

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